Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
ETC Annual Reports and Certifications	)	WC Docket No. 14-58
	)	
Rural Broadband Experiments	)	WC Docket No. 14-259
	)	

COMMENTS OF
THE UNITED STATES TELECOM ASSOCIATION

The United States Telecom Association (USTelecom)[1] submits these comments in response to the Further Notice of Proposed Rulemaking ("NPRM" or "Notice") issued by the Federal Communications Commission (Commission) proposing procedures for the competitive bidding process to be used during the Connect America Fund (CAF) Phase II auction.[2] In its Notice, the Commission seeks comment on how to apply weights to the different performance tiers adopted in its Order, and on measures to ensure appropriate support for all states.

I. Introduction and Background

In its *USF/ICC Transformation Order*, the Commission focused on speed, latency and usage as the three core characteristics that affect how consumers use their broadband service.[3] The Commission required recipients of high-cost universal service support to offer broadband service with latency suitable for real-time applications, such as voice over Internet protocol

[1] USTelecom is the premier trade association representing service providers and suppliers for the telecom industry. Its diverse member base ranges from large publicly traded communications corporations to small companies and cooperatives – all providing advanced communications service to both urban and rural markets.

[2] Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund*, 81 FR 44414, 31 FCC Rcd. 5949, FCC 16-64 (released May 26, 2016) (*CAF II Auction NPRM*).

[3] Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund*, 77 FR 26987, 26 FCC Rcd 17663, at 17696, FCC 11-161, ¶ 90 (released November 18, 2011) (*USF/ICC Transformation Order*).

(VoIP), and with usage capacity reasonably comparable to that available in residential terrestrial fixed broadband offerings in urban areas. USTelecom agrees with the Commission's conclusion that it should "value higher speeds over lower speeds, higher usage allowances over lower usage allowances, and lower latency over higher latency."[4] Of course, such valuation also must be consistent with the Communications Act's requirement that USF support be directed towards reasonably comparable services that have "been subscribed to by a substantial majority of residential customers."[5]

Any bidding procedures established by the Commission prior to commencement of the auction should recognize that consumers in rural and high-cost areas depend on reliable voice and broadband service to stay connected. The Commission therefore should focus bidding credits and CAF Phase II support on subsidizing broadband networks that provide satisfactory real-time services, such as voice communications, virtual private networks (VPNs), and other time- and data-sensitive services. As the Commission moves forward to develop its bidding procedures for the CAF II Auction, it should develop appropriate weighting criteria that maximize the impact of the available support and maintain the principle that supported broadband service should provide rural consumers who to-date have been uneconomic to serve with a satisfactory and comparable offering.

II. The Commission Should Weigh its Four Broadband Service Tiers to Ensure the Efficient and Effective Use of Limited Funds

Appropriate weighting of bids is essential to achieve the Commission's "overarching goal of providing households in the relevant high-cost areas with access to high quality broadband services, while making the most efficient use of finite universal service funds."[6] The weighting

[4] *See, CAF II Auction NPRM*, ¶ 208.

[5] 47 U.S.C. 254(c)(1)(B).

[6] *See, CAF II Auction NPRM*, ¶ 207.

methodology must not overpower the need to keep price and efficiency as the primary driver of auction results. Setting appropriate weights also is of crucial importance to achieving a competitive Phase II auction.[7] USTelecom therefore proposes that the Commission assign the following weights to its four performance tiers:

Performance Tier	**Speed**	**Usage Allowance**	**Scoring Criteria**
Minimum	10/1 Mbps	≥ 150 GB	0 Points
Baseline	25/3 Mbps	≥ 150 GB or U.S. median, whichever is higher.	10 Points
Above Baseline	100/20 Mbps	Unlimited	20 Points
Gigabit	Gig/500 Mbps	Unlimited	25 Points

USTelecom maintains that the above weighting provides an appropriate means for numerically comparing the bids received based on the value to rural consumers of having access to different service levels using the finite budget of CAF II auction,[8] while also meeting the Act's requirements for reasonable comparability and consideration of service tiers preferred by a substantial majority of residential consumers. USTelecom's approach encourages deployment of robust networks within statutory limits by weighting faster networks more heavily without losing sight of cost considerations.

Moreover, USTelecom's approach acknowledges the value of Gigabit service, while also assigning appropriate incremental credits for broadband speeds as they increase through lower-tiered ranges. While the scoring criteria acknowledges some increased value between a service offering 100/20 Mbps and one offering Gigabit service, it appropriately accounts for the greater

[7] *Id.*

[8] *Id.*, ¶ 212.

benefits consumers accrue as they go from no broadband service today to a service offering 10/1 Mbps, 25/3 Mbps, or even 100/20 Mbps performance. These are the service levels that change rural lives while making more efficient use of limited funding and should be prioritized accordingly. The incremental benefit between 100 Mbps to 1 Gig is far less clear, particularly in rural, high-cost areas currently lacking broadband.

The USTelecom proposed weightings are consistent with marketplace realities and the Communications Act, which defines Universal Service as service that has, "through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers."[9] Based on Commission data, 1 Gig service does not meet the statutory requirement to be supported by Universal Service. In fact, it is not clear that 25/3 Mbps service meets that criteria but given the 10-year term of CAF II it is at least defensible to aim for 25/3 Mbps or 100/20 Mbps as a future target.

As the Commission's most recent Section 706 report shows, though 90 percent of the U.S. population has access to 25/3 Mbps broadband service, the overall national adoption rate for such speeds is only 37 percent.[10] In a more granular example, at the end of the second quarter of 2015, 75 percent of Frontier Communications' broadband customers were still on a 6 Mbps connection despite the facts that Frontier offered 12 Mbps or better service in 73 percent of its markets,[11] and

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[9] 47 USC § 254(c)(1)(B).

[10] 2016 Broadband Progress Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 31 FCC Rcd 699, FCC 16-6, ¶ 88, Table 7 (released Jan. 29, 2016) (concluding that 90% of U.S. population has access to 25 Mbps/3 Mbps service); *see also, Id.*, ¶ 100, Table 10 (noting that overall adoption rates for fixed services at or above 25 Mbps/3 Mbps was only 37%).

[11] *See*, Sean Buckley, Fierce Telecom, *Frontier's Jureller: We can improve Verizon's broadband service without large investments*, (available at: http://www.fiercetelecom.com/story/frontiers-jureller-we-can-improve-verizons-broadband-service-without-large/2015-09-16) (visited July 21, 2016).

the 12 Mbps product is typically priced as little as $10 above the 6 Mbps product.[12] Similarly, a report released this week by the Tennessee Department of Economic and Community Development found that fewer than one in four Tennesseans have 25/3 Mbps broadband service, even though it is available to 87 percent of the state's households.[13]

USTelecom's weighting proposal acknowledges the reality of the marketplace and balances the cost of universal service with the needs of consumers in rural areas. The proposal is also technology-neutral and ensures that a variety of providers (*e.g.*, fiber, satellite, wireless, etc.) can participate in the auction, including large and small bidders. Finally, the weighting approach identified above would be easy for the Commission to administer and simple for potential bidders to understand.

III. Services with Higher Latency Should be Weighted Appropriately Given the Adverse Impact of Such Latency on Voice and Other Services.

USTelecom also proposes that a separate weighting be given to bids meeting the two latency options adopted by the Commission. In its USF/ICC Transformation Order, the first performance goal articulated was to "preserve and advance universal availability of voice service."[14] Thus the Commission reaffirmed its "commitment to ensuring that all Americans have access to voice service."[15] In its recent CAF Auction Order, the Commission acknowledged that certain providers such as satellite offer higher-latency services, but it

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[12] *See*, Frontier website, *Frontier High-Speed Internet Services* (available at: https://frontier.com/shop/internet/dsl) (visited July 21, 2016).

[13] Report, Tennessee Department of Economic and Community Development, *Internet Connectivity and Utilization in Tennessee 2016*, June 2016, p. 12 (released July 19, 2016) (available at: http://www.tn.gov/assets/entities/ecd/attachments/broadband-study.pdf) (visited July 21, 2016).

[14] *See*, *USF/ICC Transformation Order*, ¶ 49.

[15] *Id.*

nevertheless "emphasize[d] the importance of providing quality voice services."[16]

As noted by the Commission in its most recent Measuring Broadband America report, higher latencies in broadband service can negatively affect the perceived quality of highly interactive applications, such as phone calls over the Internet, video chat, or online multiplayer games.[17] In addition, VPN solutions allowing telework and home-based businesses do not function adequately over higher-latency broadband networks. In contrast, however, the Commission also concluded that the differences in average latencies among terrestrial-based broadband services are small, and are unlikely to affect the perceived quality of such highly interactive applications.[18]

The impact of high latency on service offerings – particularly voice and telework services such as VPNs – has previously been discussed in this proceeding.[19] Latency delays result in voice offerings that are not comparable to traditional voice services. Moreover, because higher latencies are primarily caused by the laws of physics, there are limited options for providers of high-latency services to engineer around such constraints.

Given the importance of voice service and telework solutions to overall universal service reform efforts, the Commission cannot ignore the lack of comparability between these services offered over high- and low-latency platforms. The Commission should therefore appropriately weight latency in its scoring criteria for the CAF Phase II auction. USTelecom proposes the

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[16] *CAF II Auction NPRM*, ¶ 30.

[17] FCC Measuring Broadband America, Fixed Broadband Report, at p. 18 (released December 30, 2015) (available at: http://data.fcc.gov/download/measuring-broadband-america/2015/2015-Fixed-Measuring-Broadband-America-Report.pdf) (visited July 21, 2016).

[18] *Id.*, p. 7.

[19] Vantage Point, Analysis of Satellite-Based Telecommunications and Broadband Services, (November 2013), attachment to Letter from Michael R. Romano, NTCA, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Nov. 7, 2013).

following weighting for the Commission's latency categories:

FCC Latency Characterization	Latency Level	Auction Weighting
Low Latency	≤ 100 ms	0 points
High Latency	≤ 750 ms & MOS of ≥ 4	-75 points

As previously noted, broadband services with high latency significantly limit the use of a number of essential applications and services, particularly real-time applications such as voice telephony and VPNs. In particular, while satellite providers have spoken to the availability of "high quality home phone service"[20] through satellite broadband subscriptions, marketplace realities suggest that consumers do not view such services as reasonably comparable to those offered by terrestrial providers. Specifically, even if one were to assume that *all* satellite broadband customers subscribed to a satellite-based home phone service, such subscriber counts would constitute far less than 1 percent of all voice subscribers in the United States.[21]

Additionally, the high latency environment of satellite broadband services essentially precludes the use of VPNs. HughesNet for example, states that "[r]unning a VPN client over satellite is not an ideal configuration," and that customers choosing to run a VPN over satellite, could see data speeds reduced "by as much as 50-75%."[22] For this reason, HughesNet technical

[20] Letter from Lisa Volpe McCabe, Senior Director, Public Policy & Outreach, Satellite Broadcasting & Communications Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., p. 2 (filed Nov. 14, 2013).

[21] *Id.* (noting 1.3 million satellite broadband providers in the US). *See also*, Local Telephone Competition: Status as of December 31, 2013, Industry Analysis and Technology Division, Wireline Competition Bureau, p. 2 (Oct. 2014) (available at: https://apps.fcc.gov/edocs_public/attachmatch/DOC-329975A1.pdf) (visited July 19, 2016).

[22] *See*, HughesNet website, *HughesNet Satellite Internet and VPN*, (available at: http://www.nationwidesatellite.com/HughesNet/service/HughesNet_vpn.asp) (visited July 21, 2016).

support does not provide help with configuring or troubleshooting problems associated with VPN clients. Similarly, WildBlue does not provide "customer support, configuration or any troubleshooting" for VPNs, and that if they are used, "speeds may slow down considerably."[23]

IV. The Commission Could Implement Measures to Ensure Appropriate Support for All States.

In its Notice, the Commission seeks comment on measures to achieve the public interest objective of ensuring appropriate support for all states.[24] Acknowledging concerns raised by certain states where significant amounts of CAF Phase II model-based support were declined by price cap carriers, the Commission seeks to ensure that existing universal service obligations are met. USTelecom suggests that the Commission address this concern by identifying a support threshold that contemplates some amount of funding for states where the model-based support was declined. However, USTelecom would oppose auctions limited by state or a threshold that did now allow CAF II funding to be awarded where competitive forces direct it.

In this regard, the Commission could consider a funding threshold of 25 percent of funds allocated by the Connect America Cost Model and a methodology that would keep this amount in the state in which it was originally offered. The Commission could incorporate this safeguard in its auction procedures. USTelecom maintains that this approach could result in declined states having access to appropriate levels of Phase II funding overall without negating the value of the competitive bidding process.

V. Conclusion.

As the Commission establishes procedures for its upcoming auction, it should focus bidding credits and CAF Phase II support to subsidize broadband networks that provide

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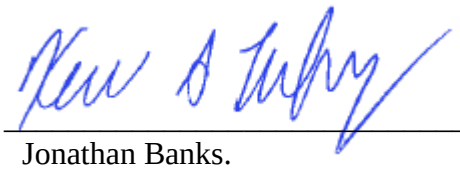
[23] See, Wildblue website, *What to Expect*, (available at: http://www.wildblue.com/customers/what-to-expect) (visited July 21, 2016).

[24] *CAF II Auction NPRM*, ¶¶ 217 – 224.

satisfactory real-time services, such as voice communications, VPNs, and other time- and data-sensitive services. It should also develop appropriate weighting criteria that maximize the impact of the available support and maintain the principle that supported broadband service should provide rural consumers who to-date have been uneconomic to serve with a satisfactory and comparable offering.

Respectfully submitted,

United States Telecom Association

By: 

Jonathan Banks.
Kevin G. Rupy

607 14th Street, NW, Suite 400
Washington, D.C. 20005
(202) 326-7300

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